

## **REMARKS**

**[0002]** Applicant respectfully requests reconsideration and allowance of all of the claims of the application. The status of the claims is as follows:

- Claims 1-3, 6, 7, 9-14 and 44 are currently pending
- Claims 8 and 45 are canceled herein
- Claims 1, 6, 11 and 44 are amended herein

**[0003]** Claims 1, 6, 11 and 44 are amended to include subject matter from dependent claim 8.

## **Cited Documents**

**[0004]** The following documents have been applied to reject one or more claims of the Application:

- **Graupner:** Graupner, U.S. Patent No. 7,035,930
- **Abu El Ata:** Abu El Ata, U.S. Patent No. 6,311,144

## **Claims 1-3, 6-14, 44 and 45 Are Non-Obvious Over Graupner in view of Abu**

### **El Ata**

**[0005]** Claims 1-3, 6-14, 44 and 45 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Graupner in view of Abu El Ata. Applicant respectfully traverses the rejection.

Independent Claim 1

**[0006]** Applicant submits that the documents currently applied to reject independent claim 1 fail to support a prima facie showing that independent claim 1 is obvious in view of the combination of Graupner and Abu El Ata. Applicant submits that the combination of Graupner and Abu El Ata does not teach or suggest at least the following features of this claim, as amended (in part, with emphasis added):

using, by the system validation computing device, both of the received descriptions to validate the system against the environment while the system is being designed and prior to attempting to deploy the system to the data center wherein validating the system against the environment further comprises:

selecting a top-level definition from an application description;

generating an appropriate instance, as described by the top-level definition, for an instance space;

selecting an additional definition nested within the top-level definition;

**generating an appropriate instance, as described by the additional definition, for the instance space based on whether the selected definition defines an object or a relationship;** and

continuing the selection of an additional definition and the generation of an appropriate instance, as described by the additional definition, until instances for all of the definitions nested within the top-level definition have been generated for the instance space.

**[0007]** Claim 1, as amended, recites in part, "generating an appropriate instance, as described by the additional definition, for the instance space based on whether the selected definition defines an object or a relationship." The Office cites Graupner, Col. 3, lines 4-26 and Col. 6, lines 1-24 as teaching this element. (Office Action, page 9, in rejecting claim 8.) Applicant respectfully traverses this rejection as Graupner fails to teach or suggest "generating an appropriate instance, as described by the additional definition, for the instance space based on whether the selected definition defines an object or a relationship" as presently claimed.

**[0008]** Graupner, col. 3, lines 4-26 states:

Services model layer 106 is the top layer in the service domain. The services model layer describes sets of distributed applications that cooperate to accomplish one or more application tasks. Distributed applications model layer 108 describes sets of application tasks that are performed at different geographic locations. Application tasks model layer 110 describes application tasks that are assigned to individual locations, with each task representing a share of an application that is performed at the location.

"Location" refers to host machines ("servers") or environments to which applications or tasks are assigned. Application processes model layer 112 describes locations of the application processes.

Virtual service centers model layer 122 is the top layer in the server domain. The virtual service centers model layer describes sets of service centers that are available to cooperatively perform one or more services. The data centers model layer 124 describes physical sites that have servers. The clusters model layer describes sets of servers that are interconnected and available to cooperatively perform selected application tasks. Finally, the servers model layer describes the individual servers present in the computing environment.

**[0009]** Graupner, col. 6, lines 1-24 states:

In one embodiment, models are described for internal processing in a Lisp-like input language. In another embodiment XML representations are generated and are used for external access and processing of those descriptions. In an example embodiment, the layered relationships between the models are accomplished by recursively defining the layered relationships using the features of the selected language. These descriptions are interpreted by a model interpreter that translates the descriptions into demand and capacity attributes for purposes of correlation.

FIG. 3A illustrates in graph form a specific example of a model. Model 300 includes nodes 1, 2, 3, and 4. While 4 nodes are illustrated in the example model, it will be appreciated that more or fewer nodes may be defined in other specific examples. Each of the nodes has associated therewith capacity attributes, c.sub.p and c.sub.s, for processing and storage, respectively. While not shown, it will be appreciated that the nodes also have associated demand attributes. Capacity attribute c.sub.p describes a number a work units (e.g., requests, jobs or tasks) per unit time. Capacity attribute c.sub.s describes a quantity of storage available for a selected unit of data. The capacity attributes are expressed in terms of normalized parameters as explained below.

**[0010]** Applicant would first respectfully point out that the cited sections of Graupner fail to teach or suggest a definition, let alone a definition that defines "an object or relationship." In fact, upon consideration of Graupner in its entirety, there is no teaching of suggestion regarding definitions or objects at all. Further, because Graupner does not teach nor suggest definitions (and particularly a definition that defines an object), it is impossible for Graupner to teach or suggest "generating an appropriate instance, as

described by the additional definition, for the instance space based on whether the selected definition defines an object or a relationship" as presently claimed.

[0011] As an example of one possible implementation explained in the present application, the expansion engine "expands those commands out to identify the appropriate objects and relationships affected by ... commands." (See Specification, page 26, lines 8-9). "Expansion engine 220 begins by creating instances of each member of the root instance." (See Specification, page 27, lines 3-4). The expansion engine checks to see whether "the selected member is an object member or a relationship member." (See Specification, page 28, lines 22-23). If the selected member is an object member, the expansion engine handles it differently than if the selected member is a relationship member. (See Specification, page 28, line 24 through page 31, line 21). The expansion engine is forced to handle the two different types of members differently because of the manner in which the number of instances is calculated. *Id.*

[0012] Graupner makes no reference to an expansion engine, more particularly, no reference to an expansion engine that "generat[es] an appropriate instance, as described by the additional definition, **for the instance space based on whether the selected definition defines an object or a relationship**" as presently claimed. Consequently, the combination of Graupner and Abu El Ata does not teach or suggest all of the elements and features of this claim. Accordingly, Applicant respectfully requests that the rejection of this claim be withdrawn.

*Dependent Claims 2 & 3*

**[0013]** Claims 2 and 3 ultimately depend from independent claim 1. As discussed above, claim 1 is allowable over the cited documents. Therefore, claims 1 are also allowable over the cited documents of record for at least their dependency from an allowable base claim. These claims may also be allowable for the additional features that each recites.

*Independent claim 6 and dependent claims 7, 9 and 10*

**[0014]** Applicant respectfully contends that the arguments set forth above with respect to independent claim 1, as amended, apply with equal weight here and the cited documents do not teach or suggest all of the claimed elements and features of independent claim 6. Accordingly, Applicant respectfully asks the Examiner to withdraw the rejections of claim 6.

**[0015]** Further, dependent claims 7, 9 and 10 are allowable for at least the same reasons that independent claim 6 is allowable. Applicant respectfully requests that the Examiner withdraw the rejection of dependent claims 7, 9 and 10.

*Independent claim 11 and dependent claims 13 and 14*

**[0016]** Applicant respectfully contends that the arguments set forth above with respect to independent claim 1, as amended, apply with equal weight here and the cited documents do not teach or suggest all of the claimed elements and features of independent claim 11. Accordingly, Applicant respectfully asks the Examiner to withdraw the rejections of claim 11.

[0017] Further, dependent claims 13 and 14 are allowable for at least the same reasons that independent claim 11 is allowable. Applicant respectfully requests that the Examiner withdraw the rejection of dependent claims 13 and 14.

Independent claim 44

[0018] Applicant respectfully contends that the arguments set forth above with respect to independent claim 1, as amended, apply with equal weight here and the cited documents do not teach or suggest all of the claimed elements and features of independent claim 44. Accordingly, Applicant respectfully asks the Examiner to withdraw the rejections of claim 44.

**Conclusion**

[0019] If any issues remain that would prevent allowance of this application, **Applicant requests that the Examiner contact the undersigned representative before issuing a subsequent Action.**

Respectfully Submitted,

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